

ABSTRACT

The present invention discloses an apparatus and a method of modulating a carrier with digital information having a series of datums represented in a plurality of symbols, the method comprising selecting a first number of half-periods of a first phase distinguished carrier signal for representing a corresponding symbol of a first one of the datums, selecting a second number of half-periods of a second phase distinguished carrier signal for representing a corresponding symbol of the datum following the first datum, determining at least one matching carrier signal having a third number of half-periods of a format to conform to a transition of the first phase distinguished carrier signal to the second phase distinguished carrier signal, and sequentially arranging the first number of half-periods of the first phase distinguished carrier signal, the third number of half-periods of the matching carrier signal and the second number of half-periods of the second phase distinguished carrier signal.